Step-by-Step guide to configure Azure File Sync

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Terms

Azure File Sync Agent
It is an agent which we need to install in on-premises windows server to enable sync with Azure file share. It includes three components,

1. **FileSyncSvc.exe** – This is the service responsible for monitoring changes in local server initiate sync with Azure file share.

2. **StorageSync.sys** – This component is responsible for tiering files to Azure files. Cloud tiering is additional feature of Azure File Sync. It can use with not frequently used files greater than 64Kb. When this enabled, local file replaced with URL to files in Azure file share. When user access it, in background it recalls the file from Azure file share. End user will not have any difference experience as it all happens in back end.

3. **PowerShell cmdlets** – This helps to manage Microsoft.StorageSync Azure resource provider using PowerShell commands.

Storage Sync Service
According to Microsoft "*The Storage Sync Service is the top-level Azure resource for Azure File Sync. The Storage Sync Service resource is a peer of the storage account resource and can similarly be deployed to Azure resource groups. A distinct top-level resource from the storage account resource is required because the Storage Sync Service can create sync relationships with multiple storage accounts via multiple sync groups. A subscription can have multiple Storage Sync Service resources deployed.*"

Sync group
Sync group defines the boundaries of sync job. A sync group includes cloud endpoint and server end point. Storage sync service can have multiple sync group.

Cloud endpoint
Cloud endpoints represent an Azure file share. One cloud endpoint can only have one file share which means one Azure file share responsible for one sync group.

Server endpoint
Server endpoints represent the local server directory which will cache files from Azure file share. A one server can hold multiple server endpoints, but one endpoint can't be part of multiple sync groups. If it's still added, it will merge with the files belongs to other endpoints in same sync group.

Registered Server
Registered server represents the trust relationship between the server and the storage sync service. It is one-to-one connection. However, one storage sync service can have many servers registered with it.

Tracking Document

Example of Tracking Document
Please save the Tracking document on the A&E SharePoint under Cloud/Azure File Services

SWVROCFLSAFSP01
Azure File Server Configuration

Service Now Ticket# INC1190103
Subscription: AZ-USA-LZ-PRD-SUB-01
Resource Group: AZ-US-E-PRD-CLR-RG-01
Location: East US
Storage account: azuselzprdclrsta0201
Storage Sync Service: azuselzprdclrsta0201-FileSync-P01
Private Endpoint: AZ-US-E-PRD-CLR-RG-01-PrivEndpoint01
Private Endpoint FQDN Address: azuselzprdclrsta0201.privatelink.file.core.windows.net
Private Endpoint IP Address: 10.254.137.4

Recovery Vault: AZ-US-E-PRD-GRS-RSV-01
Backup Policy: DefaultAFSPolicy

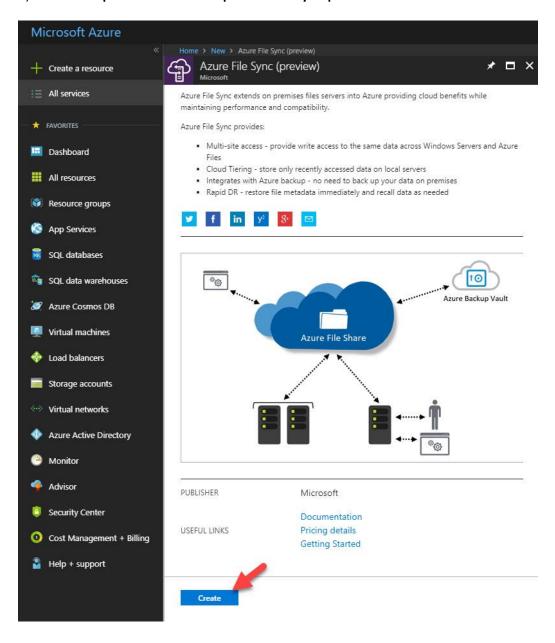==***CHANGE STORAGE TO HOT OR COOL AFTER UPLOAD FINISH==
Initial Folder List:

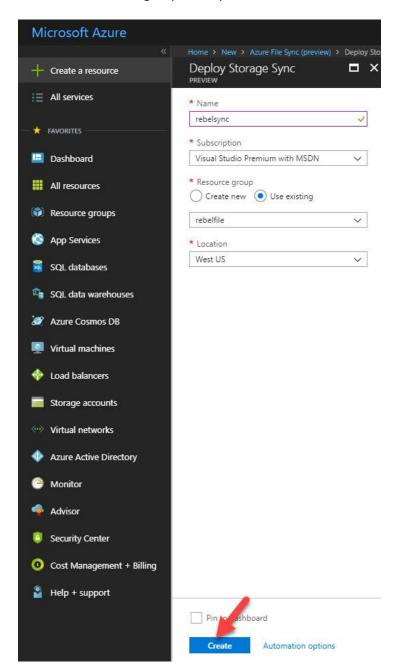| Folder Name	CloudTiering Enabled	Backup Enabled	Storage Tier	Status
E:\Legacy_Catsweb	yes	yes	Cold	Completed
E:\QLO_Rheocalc	yes	yes	Hot	Completed
E:\ToolRoom	yes	yes	Hot	Completed
F:\Business_Analytics	yes	yes	Hot	Completed
F:\salesplanning	yes	yes	Hot	Completed
G:\hypprd_share	yes	yes	Hot	Completed
G:\USA_AD_Team	yes	yes	Cool	Completed
H:\Quality	yes	yes	Cool	Completed

Create Storage Sync Service

Note: As a good practice, Create the Storage Sync Group inside the Resource group where the Storage Account reside.
Naming Convention: StorageAccountName-FileSync-P01

1) Log in to Azure Portal
2) Go to **New | Create a resource | Azure File Sync | Create**

3) In new window type name for sync service and select relevant resource group for it. if required can create new resource group. once you fill in info, click on **create**.
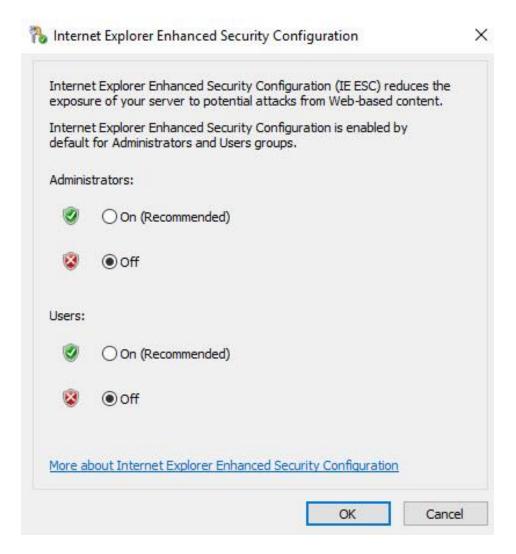
Install Azure File Sync Agent

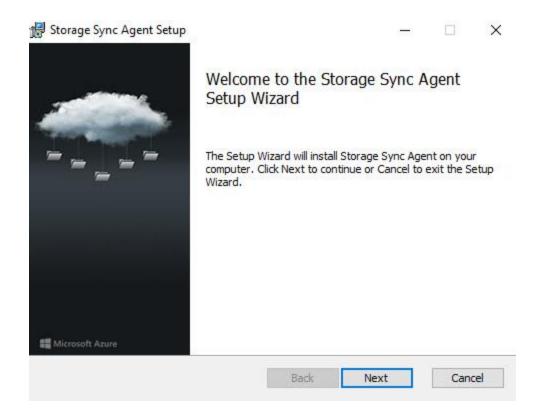Next step in configuration is to install azure file sync agent in on-premises server.

Before install agent,

• Log in to server and disabled **Internet Explorer Enhanced Security Configuration** for administrators and users.
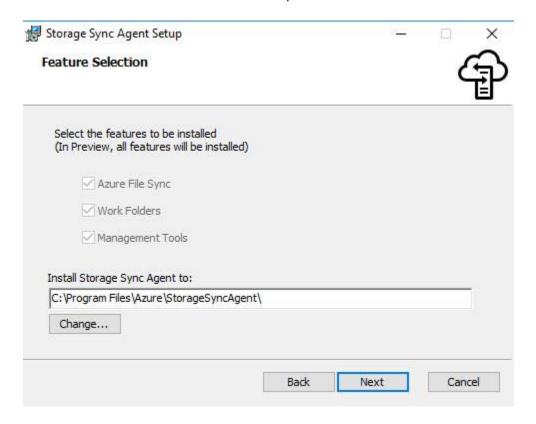

Once above in place, go and download file sync agent from https://www.microsoft.com/en-us/download/details.aspx?id=55988

Once download is completed, double click to start the installation. In initial page, click **Next** to continue.
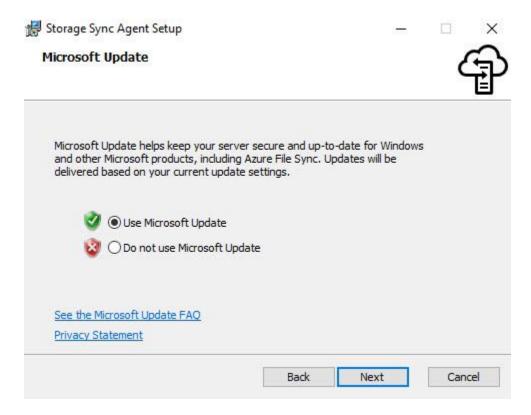
In next page, accept the license agreement and click on **Next.**

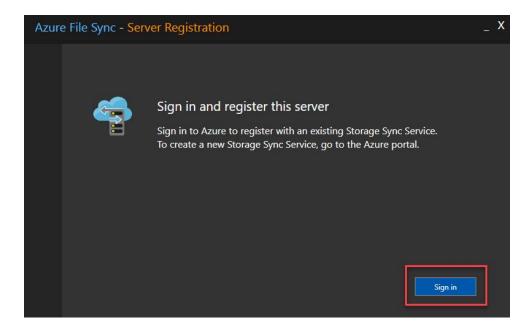After that in next window we can select the path for installation.

In next window it asks in future how you need to update the agent version. It can be done using windows update.
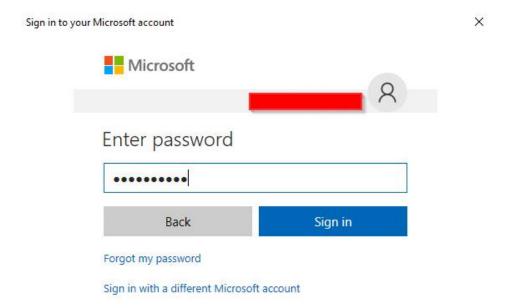

In next window, keep default settings and click on **Install** to begin installation.
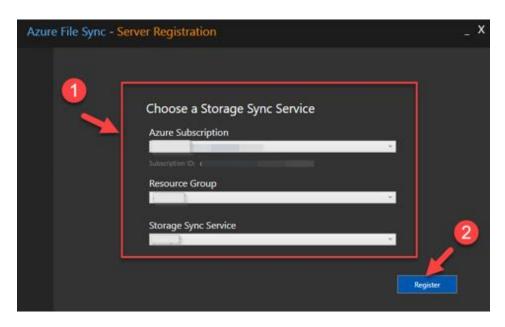
Once installation is completed, it opens Azure File Sync agent wizard. First step is to register the server. in window click on **Sign in** to start the process.
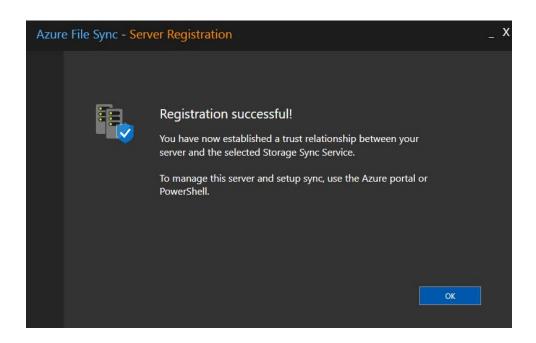
Then sign in using your Azure global administrator account.
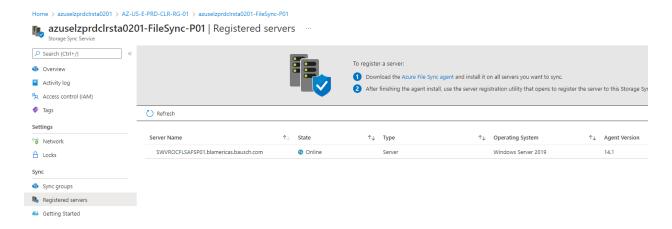

In next window select the **Azure Subscription, Resource group, Storage Sync service** and click on **Register**

Then it will ask again for login, once it is done it will complete the registration process.
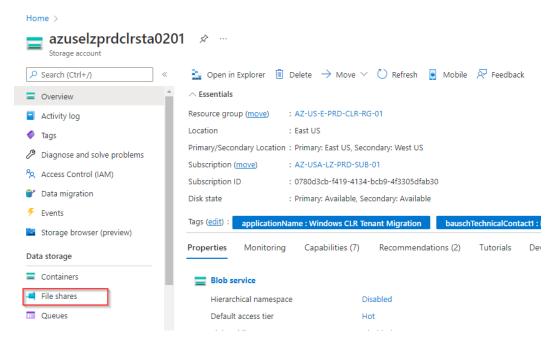
Login into the Azure Portal and verify the server has been registered and the Status is **"Online"**
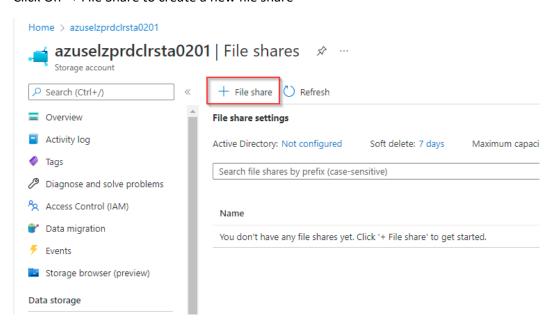
Create File Shares

Navigate to the Storage Account and select File Share

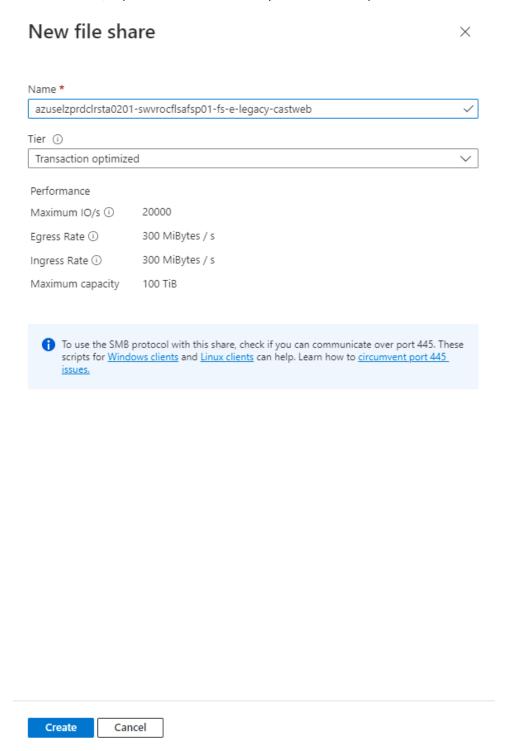Click On "+ File Share to create a new file share

When creating a new file Share use the format below:

Naming Convention: StorageAccount-ServerName-fs-DriveLetter-FolderName

Keep the Tier as **"Transaction Optimized"** for the Initial Sync, after that we can change to Hot or Cold.

Click on **Create,** repeat, and Create as many shares needed per server

New file share   ✕

Name *

azuselzprdclrsta0201-swvrocflsafsp01-fs-e-legacy-castweb   ✓

Tier ⓘ

Transaction optimized   ⌄

Performance

Maximum IO/s ⓘ   20000

Egress Rate ⓘ   300 MiBytes / s

Ingress Rate ⓘ   300 MiBytes / s

Maximum capacity   100 TiB

ⓘ To use the SMB protocol with this share, check if you can communicate over port 445. These scripts for Windows clients and Linux clients can help. Learn how to circumvent port 445 issues.

Create   Cancel

Create Sync Group
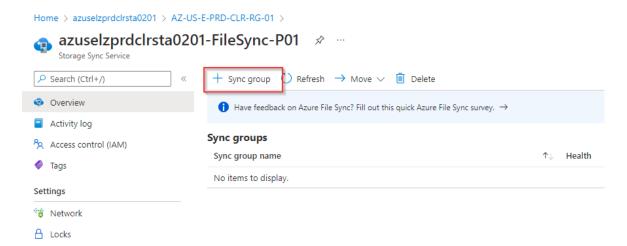
Go back to the Resource group where we created the Storage Sync Services and click on the Storage Sync Service.
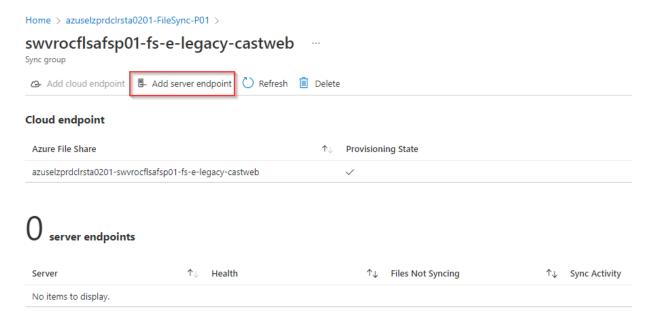

Click on **"+ Sync Group"**

Naming Convention: ServerName-fs-DriveLetter-FolderName

Select the subscription where the Storage account reside

Select the Azure File Share that Match the Sync Group Name

Click on **"Create"**

Home > azuselzprdclrsta0201-FileSync-P01 >

Sync group ···

Start by specifying an Azure file share to sync with - this is the sync group's cloud endpoint.

You can specify a folder on your servers you want to sync later.

Learn more

Sync group name	swvrocflsafsp01-fs-e-legacy-castweb ✓

Cloud endpoint

Subscription	AZ-USA-LZ-PRD-SUB-01 ⌄

Storage account	Select storage account
	/subscriptions/0780d3cb-f419-4134-bcb9-4f3305dfab30/re... ✓

Azure File Share

azuselzprdclrsta0201-swvrocflsafsp01-fs-e-legacy-castweb ⌄

Create Cancel

Click on the Sync Group that we just created, then click on **"Add server endpoint"**

swvrocflsafsp01-fs-e-legacy-castweb ...
Sync group

⬤ Add cloud endpoint   ▤ Add server endpoint   ◯ Refresh   🗑 Delete

Cloud endpoint

Azure File Share	↑↓	Provisioning State
azuselzprdclrsta0201-swvrocflsafsp01-fs-e-legacy-castweb		✓

0 server endpoints

Server	↑↓	Health		↑↓	Files Not Syncing	↑↓	Sync Activity
No items to display.							

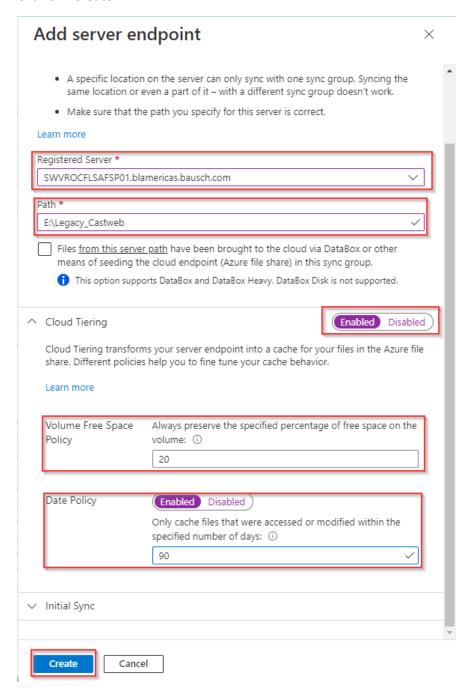Select the registered server

Enter the path that match the File Share and the Sync Group Name

Enabled Cloud Tiering

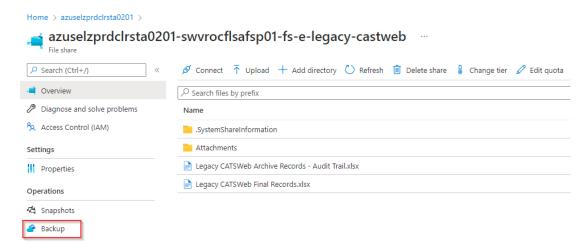Keep the Volume Free Space Policy to 20 unless something else was requested

Enable the Data Policy and enter 90 Days

Click on **"Create"**

Enabling Backup Services

Go back to the storage account, click on **"File Shares"**, then click on "**Backup"**

Select the Default Vault Name for the Subscription
Select the Default backup Policy for AFS servers: **DefaultAFSPolicy**
Click on **Enable Backup**